Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 through 37 (Cancelled).

38. (Amended currently) A method of performing ~~a)~~ immunohistochemistry, in situ hybridization, ~~or~~ fluorescent in situ hybridization, ~~on a solid phase or b)~~ a Southern hybridization, a Northern hybridization, a Western annealing, or an ELISA, wherein said method comprises using ultrasound at a frequency of at least 100 kHz.

39. (Amended currently) The method of claim 38 wherein said immunohistochemistry, in situ hybridization, or fluorescent in situ hybridization is performed on a solid phase, said solid phase ~~is~~ being selected from the group consisting of a tissue section, tissue microarray, ~~or~~ and a chip.

40. (Original) The method of claim 38 wherein said Southern hybridization, Northern hybridization, Western annealing or ELISA is performed on a membrane, a microarray or a DNA chip.

41. (Presented previously) The method of claim 38 wherein said method is performed on a solid phase, a microarray, a membrane or a DNA chip and wherein said solid phase, microarray, membrane or DNA chip receives ultrasound power of at least 0.01 W/cm^2.

42. (Amended currently) The method of claim 38 wherein a power of said ultrasound ~~has a power~~ is in a range of 0.01-100 W/cm^2.

43. (Amended currently) The method of claim 38 wherein said frequency is in ~~the~~ a range of 100 kHz to 50 MHZ.

44. (Amended currently) The method of claim 38 wherein two or more ultrasound transducers are used to produce said ultrasound.

45. (Presented previously) The method of claim 38 wherein said method is performed on a solid phase, membrane, microarray or DNA chip and wherein one or more ultrasound transducers are used to produce an ultrasound field that allows at least a portion of said solid phase, membrane, microarray or DNA chip to receive a uniform frequency and intensity of ultrasound.

46. (Original) The method of claim 38 wherein said ultrasound is produced by a

transducer comprising one or more heads.

47. (Amended currently) The method of claim 46 wherein one or more of said heads are capable of emitting a ~~wideband~~ frequency selected from the group consisting of a single frequency and a wideband frequency.

48. (Amended currently) The method of claim ~~46~~ 38 wherein ~~one or more of said heads are capable of emitting a single frequency or a wideband frequency~~ said method is performed on a sample, a tissue section, or a membrane.

49. (Original) The method of claim 46 wherein one head on a single transducer produces a frequency different from a frequency produced by a second head on said single transducer.

50. (Original) The method of claim 46 wherein one head on a single transducer produces an intensity different from an intensity produced by a second head on said single transducer.

51. (Original) The method of claim 44 wherein each of said transducers produces an ultrasound frequency different from an ultrasound frequency produced by at least one other transducer.

52. (Original) The method of claim 44 wherein each of said transducers produces an ultrasound intensity different from an ultrasound intensity produced by at least one other transducer.

53. (Amended currently) The method of claim ~~51~~ 48 wherein a range of frequencies is applied to said sample, said tissue section, or said tissue.

54. (Amended currently) The method of claim ~~44~~ 48 wherein said method is performed on a solid phase, membrane, microarray or DNA chip and wherein said transducers are arranged around said solid phase, membrane, microarray or DNA chip in a two-dimensional arrangement.

55. (Amended currently) The method of claim ~~44~~ 48 wherein said method is performed on a solid phase, membrane, microarray or DNA chip and wherein said transducers are arranged around said solid phase, membrane, microarray or DNA chip in a three-dimensional arrangement.

56. (Amended currently) The method of claim ~~38~~ 48 wherein said method is performed

on a solid phase, membrane, microarray or DNA chip and wherein said solid phase, membrane, microarray or DNA chip is rotated.

57. (Amended currently) The method of claim ~~38~~ 48 wherein said method is performed on a solid phase, membrane, microarray or DNA chip and wherein said transducer revolves around said solid phase, membrane, microarray or DNA chip.

58. (Original) The method of claim 38 wherein said ultrasound is produced as a continuous signal.

59 and 60. (Cancelled)

61. (Original) The method of claim 38 wherein said ultrasound is produced in pulses.

62 and 63. (Cancelled)

64. (Amended currently) The method of claim 61 wherein said ~~pulses vary in~~ frequency varies in ~~the~~ a range of 0.1-50 MHZ.

65. (Original) The method of claim 61 wherein said pulses vary in intensity.

66. (Amended currently) The method of claim ~~61~~ 38 wherein said ultrasound is produced as a continuous signal.

67 (Cancelled)

68. (Amended currently) The method of claim 66 wherein ~~over time~~ said signal varies in intensity over time.

69. (Presented previously) The method of claim 38 wherein said method is performed on a solid phase, membrane, microarray or DNA chip wherein said solid phase, membrane, microarray or DNA chip receives ultrasound of a power in the range of 0.01-100 W/cm^2.

70 through 91 (Cancelled).